

METHOD AND SYSTEM FOR MEASUREMENT OF FULL  
TWO DIMENSIONAL SUBMICRON SHAPES  
Abstract

5 A method and apparatus for extracting two-dimensional  
image shapes from image data on a pixel array. The  
method comprises the steps of selecting intensity vs.  
pixel information in a plurality of directions in the  
vicinity of an edge of the image shape, and recognizing  
10 scans with sufficient contrast as containing edge  
information. Acceptable scans are subjected to an edge  
detection algorithm, the edge location is detected, and a  
locus of points is generated, from the detected edge  
values, that define the two-dimensional shape of the  
15 image. The edge detection algorithm may be a user  
defined edge detection algorithm that is tailored to the  
application. Also, in a preferred embodiment, the  
selecting step includes the step of selecting intensity  
vs. pixel information in at least four directions, and  
20 the plurality of directions are angularly spaced apart at  
least about 22 degrees. With one embodiment, one of  
these directions may be normal to an approximate edge  
location.